



Schedule Incentives Reinvention Team Final Brief

Team Leader: Mr. Floyd,
SMC/AXC



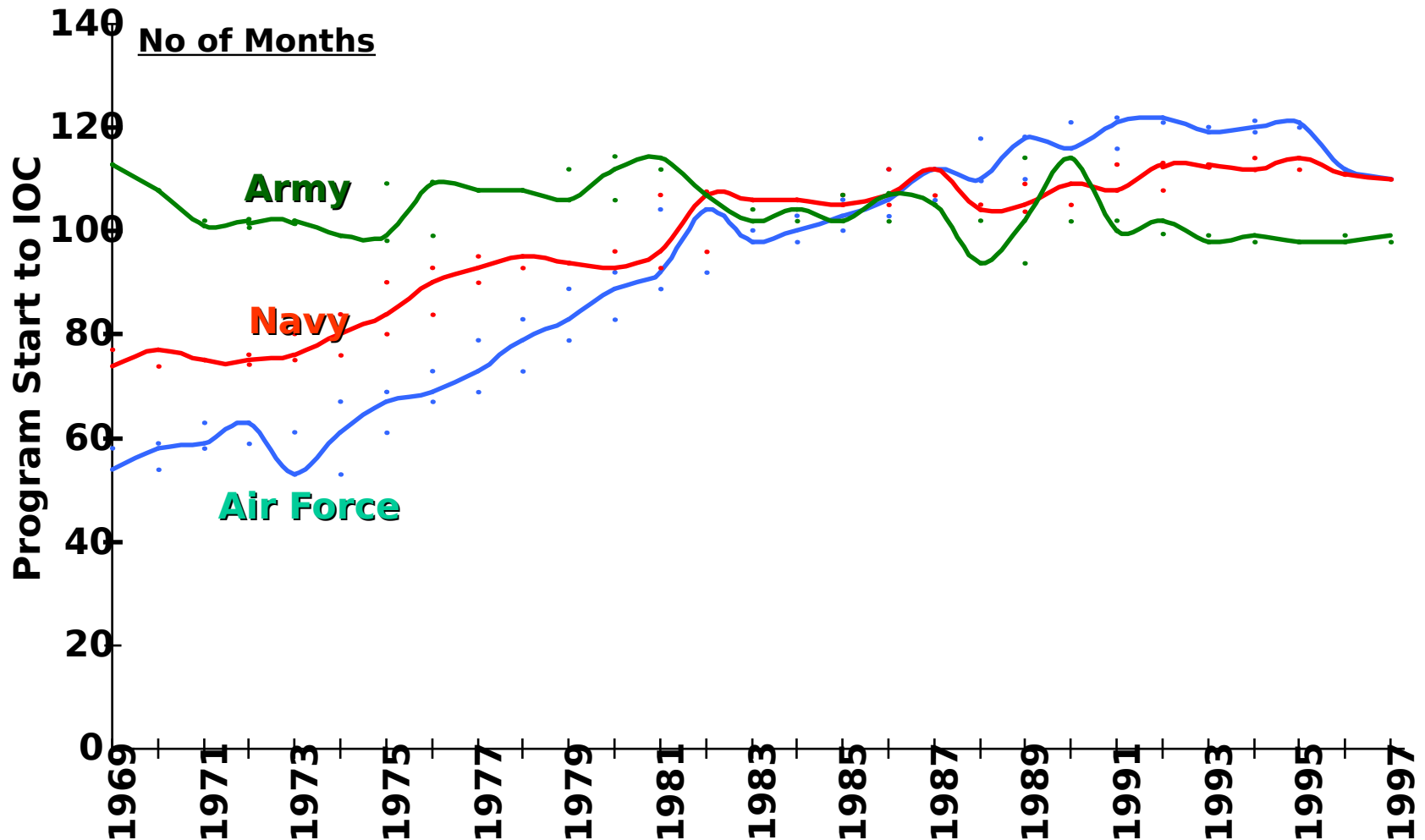
“Reducing the time to develop and field new weapons systems will not be easy, but it is a challenge that we must embrace.”

Gen Lester Lyles
VCSAF
Dec 1999



Average Cycle Times

(By SAR Reporting Years)

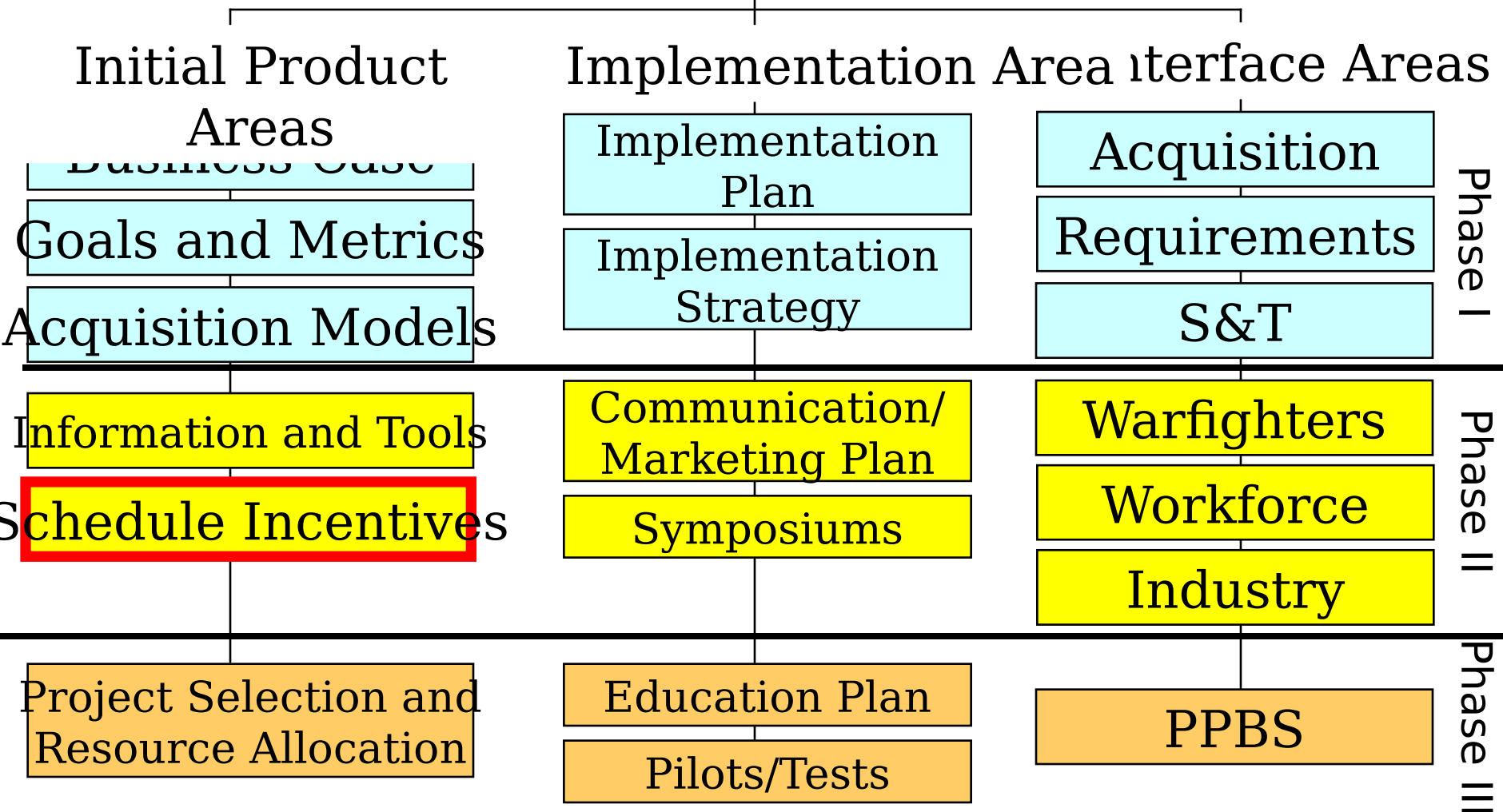



Source: DSB Briefing, Dan Czelusniak, 12 June 1998



AF Cycle Time Reduction Action Plan

CTR Action Plan



The logo features a stylized 'AR' in red and yellow, with a blue swoosh above it. The 'A' contains a white silhouette of the Air Force symbol (a stylized eagle head).

AF Schedule Incentives Reinvention Team

- Approved by AF Acq Ref Leadership Council (Jan 99)
 - One part of Phase II of AF Cycle Time Reduction Plan
- Examined government and contractor incentives to shorten project schedules
 - During pre-award phase
 - During execution phase
 - Develop range of incentive options for project offices and contractors to select from, based on project specifics
- Ensured necessary knowledge and skills available
- Led by Space and Missile Center
 - Mr Bill Floyd SMC/AXC - Team Leader
 - Mr Maikisch SMC/CD - Champion

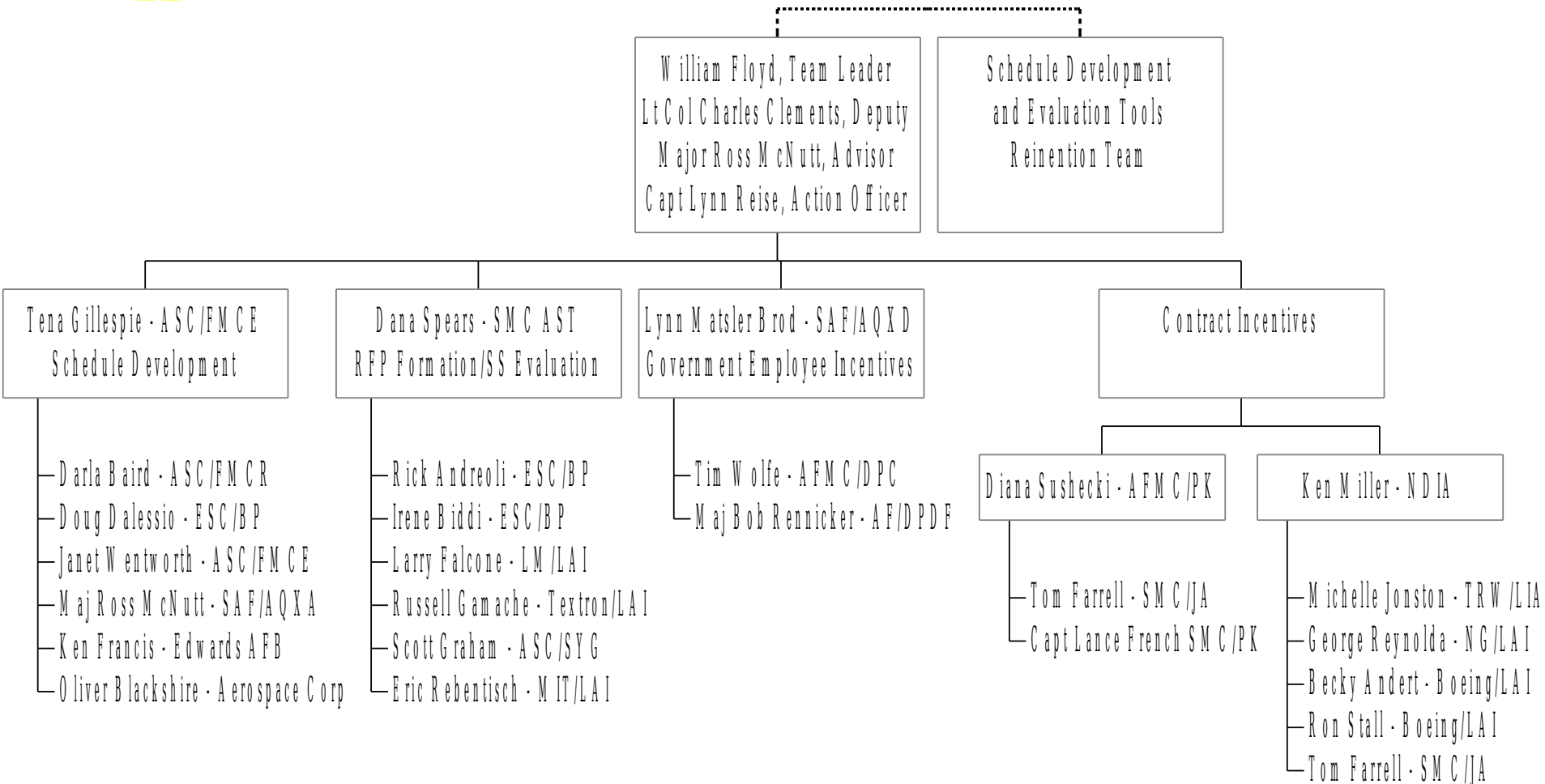


Need Statement

- Restore balance among program elements of cost, schedule, and performance - requires major cultural change
 - Cost and performance are critical, but ignoring schedule weakens the project
 - Focus of this briefing is bringing awareness of schedule back up above noise level
 - Enhance Risk Management capability
- Effective schedule incentives:
 - Motivate AF and industry to shorten developmental cycle times
 - Need industry to propose shortened schedules
 - AF needs to place greater emphasis on shortened schedules
 - Are supported by adequate knowledge, skills, and tools to effectively manage schedules



The Team





Team Efforts

- Supported DSMC Alumni Symposium - incentives development
- Hosted NDIA industry workshop
- Conducted product and logistics center PK survey
 - Schedule contract incentives
- Conducted program product survey
 - Schedule development
- Engaged commercial consultants - Don Reinertsen
- Cost of Delay Analysis - SAF/AQ effort
- Schedule tools reinvention team
- ASC cost and schedule workshop
- Contracting Officer working group
- Contractor incentive working group
- Discussions with Hughes Aerospace - “best practices”



Team Findings

1. The value of time is most often unknown for a project

- Assumptions of the value of time vary by factors of 50 to 100 on same project - leads to inconsistent decisions
- Projects that extensively use scheduling development tools experience of 1/2 schedule and 1/8th cost growth of programs that do not use these tools

Determine the value of time on each project

- Use Cost of Delay Analysis (CODA) to objectively determine value or cost of time
 - Used in industry since 1983 - adapted by SAF/AQ for use with defense projects
 - Directed by Dr. Gansler in 8 Jul 99 letter and accepted by AF through Gen Lyles' response dated 31 Aug 99
- Require review of CODA and Tactical Decision Rules at program/milestone reviews and decision points
 - Provides objective standard with which to make project and portfolio decisions
 - Balance information available on cost and performance issues



Team Findings

2. There is little emphasis placed on schedule development, management, and incentives on our projects

- Schedule widely considered by PM and PEMs to be 4th of 4 in project objective priority
- Over 90% of our contracts contain no schedule incentives

Increase the emphasis on schedule development, management, and incentives

- Make scheduling a core program management function
- Develop a “should take” schedule based on the developmental requirements to determine optimal development time
- Incorporate requirement for Integrated Master Program Schedules (IMPS) in DoD 5000.2R
- Explicitly review program schedules and incentive strategies during initial Acquisition Strategy Panel
- Require schedule metrics during program reviews for all projects - original, current plan, current estimate - similar to what is done now for cost and performance data
- Identify project schedule development and evaluation tools to assist in project scheduling - underway - Schedule Development and Evaluation Tools Reinvention Team



Team Findings

3. There is a significant lack of knowledge of schedule development, management, and incentives

- DoD/NASA Incentives Guide has not been updated since 1969
- Significant loss of schedule-related expertise
 - No required course devoted to schedule related issues; minimal reference material
 - Government all but eliminated scheduling career field - industry followed
- Most use gantt (83%) or milestone (97%) charts; 45% of those that use PERT or critical path management say they use it “occasionally”

Significantly increase knowledge of schedule development, management, and incentives

- Publish AF Guide to the Development and Management of Program Schedules
- Develop scheduling courses at DAU and DSMC
- Update the 1969 DoD/NASA Incentives Guide



Team Findings

4. There is no center, AFMC, AF or DoD organization responsible for schedule-related issues

- Need organizational advocate to balance schedule with cost and performance issues
- Little organic capability to analyze and oversee contractor efforts

Establish AF advocate and OPR for schedule issues at center, AFMC, and SAF

- Policy issues: SAF/AQX
 - Integrate cost, schedule, and performance policy
- Implementation: AFMC/DR
 - Maintain AF Guide to the Development and Management of Program Schedules
 - Sponsor training program development
 - Implement CODA integration
 - Support Acquisition Support Teams (ASTs) to enhance early program planning
 - Support development of scheduling expertise at the centers
- Center-level Implementation: Program Management



Team Findings

5. Schedule plays little or no role in source selection decisions

- “Telling the government they are wrong is not a winning strategy”
- 80% of projects specify expected schedule to contractor
- Contractors who do bid different schedules seen as nonresponsive

Increase importance and weight of schedule in source selection

- Make schedule an optional source selection factor
- Develop contract schedule-incentive structure to be used during contract execution prior to source selection
- Present time-adjusted value along with cost and risk-adjusted cost to Source Selection Authority
 - Adjust proposal cost by cost of delay to determine time-adjusted value
- Develop evaluation tools to support source selection teams - underway - Schedule Development and Evaluation Tools Reinvention Team



Team Findings

6. The AF provides few effective schedule-related incentives once on contract

- Award fee is the most often used - 93% average irrespective of schedule performance
- 50% or more of contractors report no incentive to exceed any of the project objectives - cost, schedule, or performance, or ops & maintenance
- Cost and value of incentives are not symmetrical

Provide effective and appropriate incentives to shorten development time once on contract

- Develop menu of pre-approved schedule-related incentives for program offices and contractors to use
- Develop contract schedule-incentive structure to be used during contract execution prior to source selection
- Review incentives approach during Acquisition Strategy Panel



Team Findings

7. The AF provides few incentives to government employees to reduce schedules

- Lack of leadership attention to schedules - as long as you meet your current one
- Long project schedules means lots of project managers - reduced accountability
- Performance reviews driven by other factors - additional duties - not project performance
- Product development is a team effort - government/ contractor/supplier - need to establish team goals and focus on team accomplishments

Provide effective and appropriate incentives to government workforce

- Require schedule metrics during program reviews for all projects - original, current plan, current estimate
- Enhance awards program - focus on meeting and beating schedule
- SAF letter encouraging use of incentives
 - Let supervisors know that they should reward people for doing their primary job well
- Establish team cash awards - shared between government and industry participants - for beating schedule
 - Allowing military to share in team cash awards requires change in law
- Allow use of Form 1000 and AF Idea program for schedule reductions



Team Findings

8. There are many other problems that must be addressed before cycle times will be reduced

- Proper scheduling and schedule incentives are only one part of the solution
 - Funding levels
 - Funding instability
 - Requirement changes
 - Portfolio management practices - too many ongoing projects

There are many other problems that must be addressed before cycle times will be reduced

- Funding levels and stability
- Requirements stability
- Other issues



The Way Ahead

- Finalize final report
- Draft advocacy briefings and position papers for areas requiring policy changes
 - Provide to SAF/AQX for staffing
- Participate in AST Quarterly Summit
 - Introduce new source selection procedures
 - Introduce AF Guide to the Development and Management of Program Schedules
- Road show to product and logistics centers
 - Teach cost of delay analysis and the value of time
 - Introduce AF Guide to the Development and Management of Program Schedules